

4:1 Flux Coupled Transformer 1-350MHz

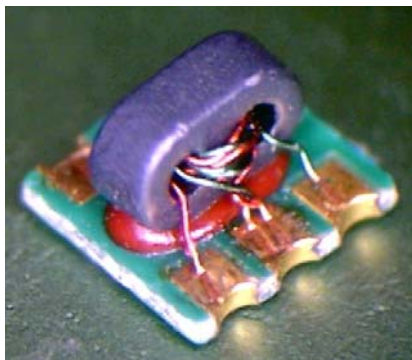
**MABACT0067
V1P**

Features

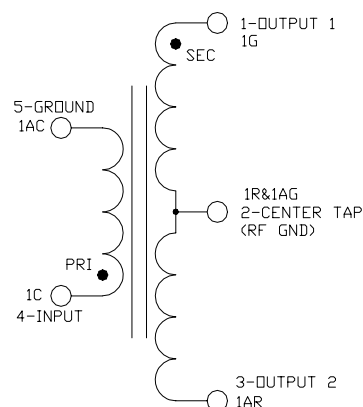
- Surface Mount
- 4:1 Impedance
- Excellent amplitude and phase balance
- Can be used in both 50Ω and 75Ω systems
- 260°C Reflow Compatible
- RoHS* Compliant
- Available on Tape and Reel. Reel quantity 2000

Description

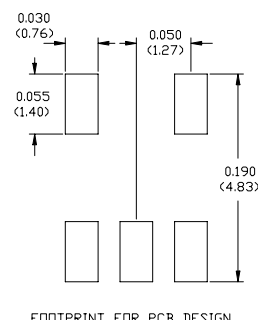
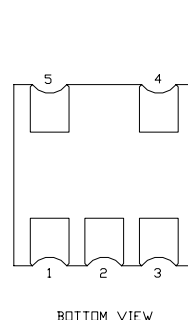
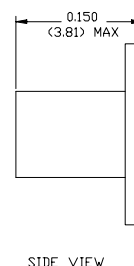
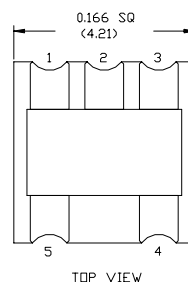
M/ACom's MABACT0067 is a 4:1 RF flux coupled step up transformer in a low cost, surface mount package. Ideally suited for high volume CATV/ Broadband applications.



Schematic



Case Style: SM-164



Dimensions in inches [mm] Tolerance: .xx ± .02, .xxx ± .010

Pin Configuration

Pin No.	Function
1	Secondary Dot (output 1)
2	Centre Tap (ground)
3	Secondary (output 2)
4	Primary Dot (Input)
5	Primary (Ground)

Note: Reference Application Note **M513** for reel size information.

Ordering Information

Part Number	Package
MABACT0067TR	2000 piece reel

* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

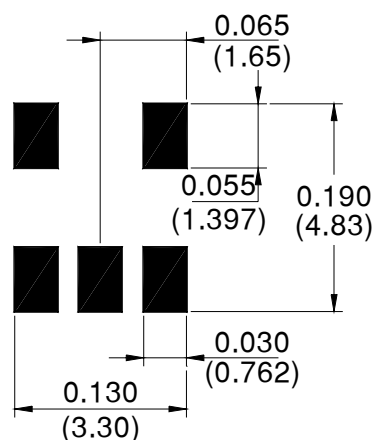
**4:1 Flux Coupled Transformer
1-350MHz**
**MABACT0067
V1P**
Electrical Specifications: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$

Parameter	Test Conditions	Units	Min	Typ	Max
Insertion Loss 1 (pin 4-1)	1 - 5 MHz	dB	-	1.6	2.0
	5 - 200 MHz		-	0.9	1.0
	200 - 350 MHz		-	1.0	1.5
Insertion Loss 2 (pin 4-3)	1 - 5 MHz	dB	-	1.5	2.0
	5 - 150 MHz		-	0.9	1.0
	150 - 350 MHz		-	1.1	1.5
Amplitude Unbalance (Nominal 0dB)	1 - 250 MHz	dB	-	± 0.1	± 0.2
	250 - 350 MHz		-	± 0.2	± 0.3
Phase Unbalance (Nominal 180°)	1 - 150 MHz	°	-	± 1.0	± 2.0
	150 - 350 MHz		-	± 2.0	± 5.0
Input Return Loss	1 - 5 MHz	dB	10	12	-
	5 - 200 MHz		15	19	-
	200 - 350 MHz		11	14	-

Absolute Maximum Ratings^{1,2}

Parameter	Absolute Maximum
Max Input Power	250mW
DC current	240mA
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +100°C

- Exceeding any one or combination of these limits may cause permanent damage to this device.
- M/A-COM does not recommend sustained operation near these survivability limits.

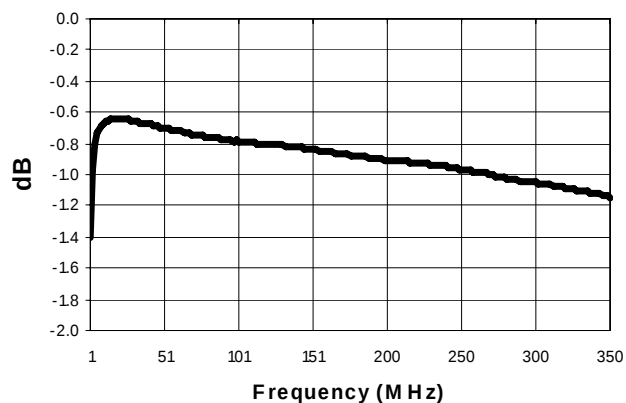
Recommended PCB Configuration


**4:1 Flux Coupled Transformer
1-350MHz**

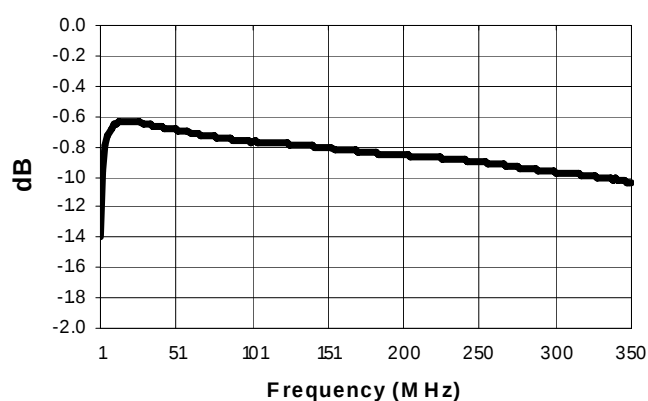
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Typical Performance Curves: $T_A = 25^\circ\text{C}$, $Z_0 = 50\Omega$

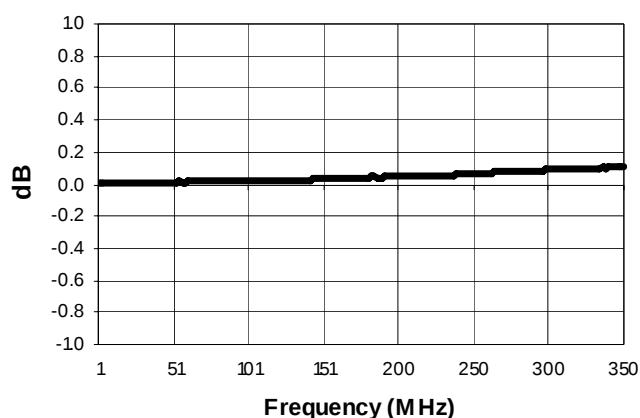
Insertion Loss 1 (pin 4 to pin 1)



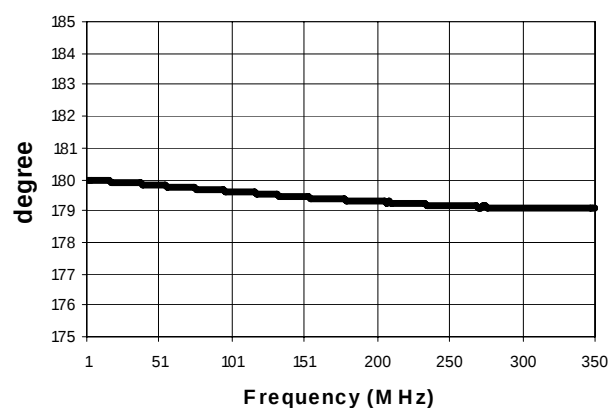
Insertion Loss 2 (pin 4 to pin 3)



Amplitude Unbalance



Phase Balance



Input Return Loss

